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STRATEGIC APPROACH TO INTERNATIONAL CHEMICALS MANAGEMENT

GOOD CHEMISTRY, TOGETHER

UNEP

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GOOD CHEMISTRY, TOGETHER

From food and clothing to transport and technology and virtually everything in between, chemicals are part of daily life. As they are used in almost every area of the world economy, chemical safety is an urgent issue that increasingly affects us all. The future of sustainable development – with its emphasis on healthy livelihoods and well-functioning ecosystems and natural resources – is therefore inseparable from a sound approach to managing the way we use chemicals throughout their whole life cycle, including pursuing safe alternatives and recycling.

Chemicals are the building blocks of many things we use, eat, and wear. In toys, tyres, paint, computer screens, mobile phones, food crops – chemicals are there. They also bring benefits in medicine and agriculture, spur economic growth, and help advance technology. Chemicals have the power to build economies, sustain societies, cure the sick, entertain, feed and clothe us. The ways in which we use chemicals can make the difference between environmental degradation and rich resources, between health and illness, between a thriving economy and one that is threatened by occupational exposure to chemicals and associated costs of disease.

"We recognize that sound management of chemicals is crucial for the protection of human health and the environment. We further recognize that growing global production and use of chemicals and prevalence in the environment calls for increased international cooperation. We reaffirm our aim to achieve by 2020 sound management of chemicals throughout their life cycle and of hazardous waste in ways that lead to minimization of significant adverse effects on human health and the environment, as set out in the Johannesburg Plan of Implementation."

Rio+20 UN Conference on Sustainable Development, Outcome Document "The Future We Want"

Cover photos (from left to right) @ Kenishirotie , @ Somsak Suwanput, @ Suwin

THE CHEMICALS CHALLENGE

Around 100,000 chemical substances are found in products or are on the market. It is estimated that by 2020, developing countries will produce 31 per cent of global chemicals and use 33 per cent of global chemicals.

The chemicals challenge cuts both ways. If improperly managed, chemicals and the pollution linked with their manufacture, use, and disposal come at a cost to the economy, human health and the environment. Occupational exposure to hazardous substances alone cause an estimated 651,000 known deaths annually, mostly in the developing world, a figure that may be greatly underestimated in many countries. Factors linked to occupational and health issues from chemical exposure include compensation, lost working time, interruption of production, training and retraining, medical expenses, and social assistance, occupational and health losses, all of which affect global gross national product.

Left photo © Zhao Jian Kang,
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THE SAICM STORY, A UNIQUE ONE

SAICM is a catalyst, connecting sectors and stakeholders, towards the goal of a chemical-safe, clean and healthy future. Getting to 2020 will take great strides by all stakeholders to commit and stay engaged in order to accelerate progress. SAICM will continue to support closing the gap in chemicals management between developed and developing countries.

Since its adoption in 2006, SAICM has created a pro-active, inclusive and overarching platform for engagement and commitment of governments, inter-governmental organizations (IGOs), non-governmental organizations (NGOs) and industry. It is an international voluntary and non-binding approach to achieve the 2020 goal. SAICM's global approach covers all agricultural and industrial chemicals throughout their life cycle and reflects environmental, economic, social, health and labour aspects of chemical safety.

More than 250 sectors and stakeholders make up the unique SAICM multi-stakeholder platform. Represented sectors include agriculture, environment, health, business, labour, the private sector, science and academia.

Main stakeholders come from governments, regional organizations, intergovernmental organizations, nongovernmental organizations, industry, consumers, farmers, transporters, producers, researchers, suppliers, waste and disposal handlers, and unions.

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On the policy and legislation side of chemicals management, some of the substances have legally binding obligations under global multilateral environmental agreements: hazardous waste and disposal (the Basel Convention); persistent organic pollutants or POPs (the Stockholm Convention); the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade (the Rotterdam Convention); and mercury (the Minamata Convention). SAICM's work addresses these, as well as substances that do not fall directly under these Conventions. Chemical safety is also addressed in other areas such as the International Health Regulations (2005) and the International Labour Organization's Convention concerning Safety in the use of Chemicals at Work and the International Code of Conduct for Pesticide Management.

Chemicals are part of our everyday lives and the inclusiveness of the SAICM platform reflects that.

> **SAICM has enabled actions beyond legal requirements, brought attention to, and catalysed actions on emerging policy issues, supported projects worth more than US $110 million in more than 100 developing countries, built networks among sectors and stakeholders and facilitated cooperation among them.**

SAICM stakeholders have acknowledged that long-term financing of the Strategic Approach should be based on multiple sources of funding. This entails an integrated approach that includes mainstreaming, industry involvement and dedicated external financing. The integrated approach provides an opportunity to institutionalize support for sound chemicals management and stabilize financing.

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SAICM is constituted by a high-level declaration expressing the commitment of the stakeholders, an Overarching Policy Strategy, outlining the scope and objectives of the Approach, and a Global Plan of Action setting out proposed work areas and activities for implementation, including actions at national, regional and international levels. SAICM catalyses:

- Networks of regional, multi-sectoral and multi-stakeholder participation
- Platforms that support pro-active work on emerging issues
- Opportunities to enhance engagement and responsibility of stakeholders

SAICM's governing body is the International Conference on Chemicals Management (ICCM), facilitating resource-sharing and further cooperation. ICCM works with stakeholders to assess progress towards implementation of the Strategic Approach, provides relevant guidance, promotes implementation of existing instruments, addresses policy issues, and seeks to meet technical and funding needs.

Direction for facilitating the achievement of the 2020 goal has been set through six core activity areas that support the implementation of the Overarching Policy Strategy and the Global Plan of Action.

Six areas:

- Enhance the responsibility of stakeholders: promoting and reinforcing commitment and multi-sectoral engagement;
- Establish and strengthen national legislative and regulatory frameworks for chemicals and waste: improving capacity to address the basic elements of the sound management of chemicals and waste and encouraging regional cooperation;
- Mainstream the sound management of chemicals and waste in the sustainable development agenda: advancing risk reduction and enhancing the link between the sound management of chemicals and waste with health, labour, social and economic development planning, processes and budgets;
- Increase risk reduction and information-sharing efforts on emerging policy issues: continuing to promote actions on issues not currently addressed in existing agreements, complementing initiatives taken by other bodies;
- Promote information access: increasing the accessibility of relevant information and making it understandable for all levels of society;
- Assess progress towards the 2020 goal of minimizing the adverse effects of chemicals on human health and the environment: identifying achievements, understanding the gaps in implementation and prioritizing actions for achievement by 2020.

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SAICM IN ACTION

Driving SAICM's work to bring about change for a chemical-safe, clean and healthy future are five objectives:

Risk Reduction – Enhanced measures have been taken that include the identification of risk reduction measures beyond those contained in legally binding instruments; strengthened policy and regulatory frameworks; and compliance and enforcement measures, in particular for procedures for the regional harmonization of pesticide regulation and authorization processes. The organizations participating in the Inter-Organization Programme for the Sound Management of Chemicals (IOMC) have developed chemicals management tools and guidance to support the implementation of risk reduction measures at national and regional levels. The International Council of Chemical Associations (ICCA) launched the Responsible Care Global Charter and Global Product Strategy in 2006 and has provided financial support for more than 60 projects between 2008 and 2014. Civil society participating organizations in the International POPs Elimination Network (IPEN) carried out more than 300 activities in 50 countries between 2009 and 2012.

Knowledge and Information – The Strategic Approach has fostered enhanced coordination and cooperation among intergovernmental organizations and has expanded stakeholder participation in the sharing of knowledge and information on the sound management of chemicals and waste. It has raised the profile of the emerging policy issues and supported informed decision-making on the future use and regulation of a number of substances. These initiatives have contributed to bridging the knowledge and information gap between developed and developing countries on key issues.

Progress has also been made in implementing and promoting the Globally Harmonized System for the Classification and Labelling of Chemicals (GHS). The SAICM Quick Start Programme has directly supported 24 projects on the labelling of chemicals according to internationally harmonized standards and on the assessment and strengthening of national and regional capacity for implementing the Globally Harmonized System.

Governance – Wider engagement of governments, civil society, industry and a range of intergovernmental organizations is fostering enhanced cooperation and generating ownership of issues related to sound chemicals management crucial to tackling risk reduction. For example, SAICM focal points to promote coordination and information-sharing now include 175 governments represented by environment or foreign affairs ministries, and 17 by health, labour or agriculture ministries, with 85 NGOs from industry and civil society. Measures have been taken to integrate sound chemicals management into strategies for development assistance, sustainable development and poverty reduction papers; to develop national profiles and implement action plans for sound chemicals management; and to strengthen policy, law and regulatory frameworks and compliance promotion and enforcement measures.

Capacity-building and Technical Cooperation – Capacity, technical cooperation and technology transfer at the regional level have been further fostered through information sharing and exchange on best practices in relevant regional meetings and forums, through regional projects under the Quick Start Programme, voluntary industry initiatives, the promotion of partnerships and the establishment and active engagement of Strategic Approach regional focal points. Through its nine participating organizations, the IOMC has supported implementation of risk reduction measures and mainstreaming of chemicals management at the national and regional levels.

Furthermore, establishing an issue as an emerging policy issue or as a 'challenge of global concern' has raised the level of attention to the issue to national, regional and global levels and resulted in enhanced synergies, policy responses, formal and informal networks among stakeholders, identification of appropriate implementation mechanisms and possible sources of funding.

photo @ Ndoeljindoel

Illegal International Trade – Work is underway – and much more is needed – in the tracking of unrecorded trade in banned chemicals, counterfeit chemicals and hazardous waste. Efforts have been undertaken at the global, regional and national levels to address illegal international traffic, in particular for wastes covered by the Basel Convention on the Control of Transboundary Movement of Hazardous Wastes and Their Disposal. However, a comprehensive global picture of the matter, in particular the frequency of incidents over time and the quantities of materials involved, needs to be better documented. Better monitoring and enforcement efforts can go a long way to ensuring that unrecorded trade in banned chemicals, counterfeit chemicals and hazardous waste does not occur.

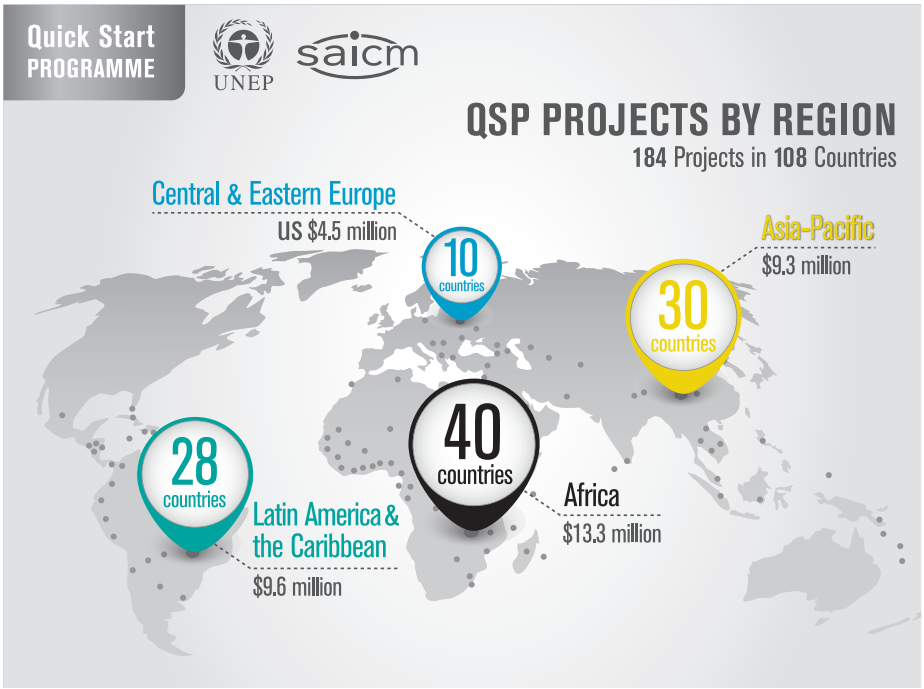
THE QUICK START PROGRAMME

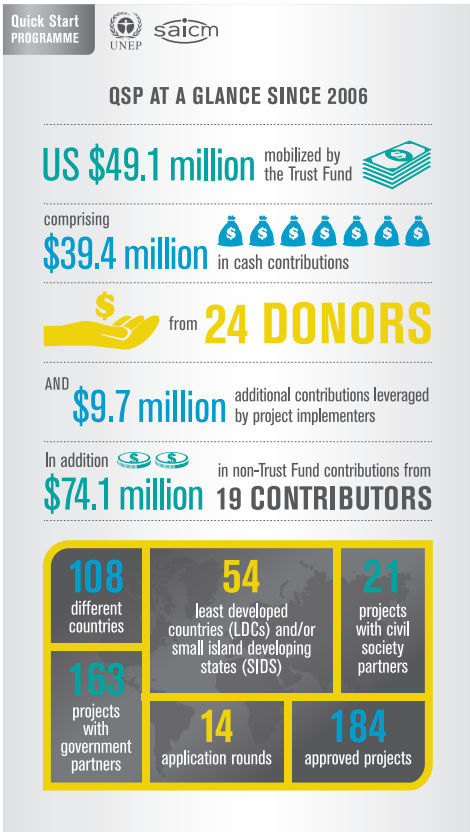
SAICM's Quick Start Programme (QSP) includes a multi-donor funding mechanism to secure wide stakeholder ownership of projects and initiatives. The QSP has served as a primary tool for enabling activities related to capacity-building and technical cooperation through the approval of 184 country-driven projects under the Programme's Trust Fund in 108 developing countries and with economies in transition: 40 countries in Africa, 30 in Asia and the Pacific, 10 in Central and Eastern Europe and 28 in Latin America and the Caribbean. Of its projects, 54 have been awarded to least developed countries or small-island developing States, and 21 have been led by civil society.

> QSP projects have enhanced knowledge of the chemicals and waste management situation of the countries concerned, developed policy and legal frameworks, strengthened institutional capacity, and raised awareness, in turn leading to enhanced opportunities for industry involvement.

SAICM includes sectors and stakeholders, often with a broad reach that can influence and spread awareness among many groups at a time. One example is work through SustainLabour which, from 2006 to 2013, and with QSP project funding, reached 125 trade unions representing 9.5 million workers in agriculture, mining, the paper mills and metal industry, the chemicals industry, fisheries, the public sector, ports, airports, domestic and cleaning sectors and waste management.

As part of a project with SustainLabour, in the Dominican Republic, 400 farm workers – many of them women – were trained in identifying substances, toxicity and risk prevention. In reviewing their production processes, they learned about alternatives much safer than the toxic substances they had unknowingly been handling. The workers are expected to obtain official certification for Green Purchases from the government of the Dominican Republic, supporting increased market share and revenue.





"Chemical safety for children at work in Agriculture" (Uganda) was implemented by UNDP and the Pro-biodiversity Conservationists in Uganda (PROBICOU) organization. It supported the prevention of health problems due to exposure to agricultural chemicals by workers and children. It featured wide engagement and uptake: seminars and workshops on safety measures; development of a national inventory of dangerous chemicals and end-point discharges with multi-stakeholder participation; chemical safety education formalized in two main trade unions; and further awareness activities for district officials, extension workers, decision-makers, and civil society leaders. Mass communications through radio and TV talk shows, and print media provided an additional boost to the project.

Mainstreaming of chemicals issues is key to a safer future and district leaders took steps to do this in their planning and budgeting. The project board was the multi-stakeholder steering committee on child labour established by the Government in 2011 with support from ILO/International Programme on the Elimination of Child Labour (IPEC).

The project "Chemical Accident Prevention and Preparedness Programme (CAPP)" for Sri Lanka and Tanzania was implemented in cooperation with the respective governments and UNEP to improve capacity for chemical accident prevention and industrial safety, and to develop a national chemical accident prevention programmes (CAPP) based on the UNEP methodology. The countries were supported in reducing the likelihood of chemical accidents, and if they occur, minimizing their impacts on people, communities, the environment and property. Activities focused on establishing a national multi-stakeholder chemical accidents prevention programme committee; assessing needs; understanding vulnerability to chemical accidents; and looking at legal and regulatory frameworks, resources needed and country priorities for a CAPP. Training materials and a study for development and implementation led to the governments establishing their respective CAPPs and a roadmap for a national action plan.

MORE TO THE STORY

Five emerging policy issues (EPIs) have been identified by SAICM offering a chance to bring together key stakeholders, to work across sectors, to pursue the latest knowledge and science, to promote effective policies, and to initiate and support platforms for exchange.

- Lead in paint: Paints that contain high levels of lead are still widely available and used in many countries in homes, schools, and hospitals, playground facilities, jewellery, toys and more. Lead is highly toxic and can lead to impaired reproduction, and neurological and behavioural changes. Childhood lead exposure is estimated to contribute to about 600,000 new cases of children with intellectual disabilities every year. Actions needed include establishing ways to determine the lead content of paints, eliminating manufacture of lead paint, and requiring proper labelling on paint containers, all supported by appropriate legislation, regulation and enforcement.
- Endocrine disrupting chemicals (EDCs): Good endocrine or hormonal functioning is essential to the healthy development of people and wildlife. Endocrine-disrupting chemicals or EDCs disturb hormonal processes. We see their impacts on dwindling wildlife in some cases, and on people affected by disorders of the thyroid, bones, metabolism and hormones. Whether natural or manmade, close to 800 chemicals are known or suspected EDCs. Exposure can occur through metals, food additives, and ingredients in plastics, cosmetics, some medicines, textiles and construction materials. Healthcare systems need to be able to capture and address the contribution of environmental risk factors to endocrine disorders. Better methods for evaluating the science, and enhanced collaboration and data-sharing will provide insurance for human and environmental sustainability.
- Chemicals in products (CiP): Everyday items become vehicles for the global transport of chemicals with potentially significant impacts at every stage of the product life cycle. For example, trade in articles has been identified as a significant driver of global transport of lead, cadmium, mercury and brominated flame retardants. In some instances, the most significant human and environmental exposures occur through product use and disposal, and are added to those that occur during manufacturing.

photo @ Purino

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The chemicals in products programme (CiP) is a multi-stakeholder initiative to enhance access to reliable information about chemicals in products. It is intended to engage all the stakeholders in the product chain of raw material supply, component and product manufacture, distribution, retailing, use and end-of-life management. Each of these actors has a need for specific types of chemical information and, under CiP, each would exchange chemicals information with others in their product sector.

- Nanotechnology: Nanotechnology and manufactured nanomaterials ("nano") is a growing industry that uses the tiniest molecules to create products that bring benefits but also potential risks to human health and the environment that are not yet fully known. As a result, numerous nano-containing products are placed on the market, leading to the need to prepare appropriate regulations and safety standards. Risk assessment and guidelines for safe handling of manufactured nanomaterials are being tackled through training workshops and e-learning courses. Making manufacturing and handling safe needs to be an integral part of occupational health and safety guidelines for workers in a broad range of manufacturing and social environments. Government policymakers need to be provided with scientific evidence and recommendations for standards and guidance for the safe handling of nanomaterials in the workplace.
- Hazardous substances in the life cycle of electrical and electronic products (HSLEEP): With technology moving at a fast pace, the lifespan of computers and mobile phones in developed countries is down to two years or less. Improper disposal of these products results in harmful emissions of hazardous substances, for example, lead in circuit boards or cathode ray tube (CRT) glass, and mercury in liquid crystal display (LCD) backlights. Other harmful disposal processes include dioxin formation during burning of halogenated plastics or use of smelting processes without suitable off-gas treatment, nitrogen oxides (NOx) gas from leaching processes and mercury from amalgamation. A number of actions can include sharing available information, gathering further knowledge on potential safer substitutes for chemicals of concern in electrical and electronic product applications, wider engagement by sectors and stakeholders, stronger business standards and practices for tracking and disclosing the presence of hazardous chemicals in the manufacturing, and "green purchasing" strategies by business and governments.

Partners taking the lead role on emerging policy issues are OECD, UNEP, UNIDO, UNITAR, and WHO.

Commitment, cooperation, awareness and ownership among all stakeholders will be key to achieving the future we want for the sound management of chemicals. Improving quality of life, reducing the burden of disease, and safeguarding the environment while pursuing economic growth can contribute to sustainable development goals by 2020 – let's get there together.

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